

A system for managing packets incoming to a data router has a local packet memory (LPM) mapped into pre-configured memory units, to store packets for processing, an external packet memory (EPM), a first storage system to store packets in the LPM, and a second storage system to store packets in the EPM. The system is characterized in that the first storage system attempts to store all incoming packets in the LPM, and for those packets that are not compatible with the LPM, relinquishes control to the second system, which stores the LPM-incompatible packets in the EPM.